## METHOD AND APPARATUS FOR ETCHING AND DEPOSITION USING MICRO-PLASMAS

## ABSTRACT OF THE DISCLOSURE

Plasma etching or deposition is performed over substrates using

spatially localized micro-plasmas operating in parallel with each other. A plasma
generating electrode is positioned closely adjacent to an exposed surface of the
substrate, as on the surface of a dielectric layer applied to the substrate. A selected
pressure of the gas in the region of the electrode and the substrate is established,
and a voltage is applied between the plasma generating electrode and the substrate

or a second electrode to ignite a plasma in the region between the plasma generating
electrode and the substrate for a selected period of time. This plasma is limited to
the region of the plasma generating electrode adjacent to the exposed surface so that
the substrate is plasma treated in a desired pattern.